

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/559,925  
Source: JFWP  
Date Processed by STIC: 12/20/2005

# ***ENTERED***

**CRF Errors Edited by the STIC Systems Branch**

Serial Number: 10/559,925

CRF Edit Date: 12/21/2005  
Edited by: DA

\_\_\_ **Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line**

\_\_\_ **Corrected the SEQ ID NO. Sequence numbers edited were:**

\_\_\_\_\_

\_\_\_ **Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:**

\_\_\_\_\_

/ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ **Inserted mandatory headings/numeric identifiers, specifically:**

\_\_\_\_\_

\_\_\_ **Moved responses to same line as heading/numeric identifier, specifically:**

\_\_\_\_\_

\_\_\_ **Other:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



IFWO

## RAW SEQUENCE LISTING

DATE: 12/21/2005

PATENT APPLICATION: US/10/559,925

TIME: 10:43:53

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\12202005\J559925.raw

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3 <110> APPLICANT: Yacoby-Zeevi, Oron
4   Peretz, Tuvia
5   Miron, Daphna
6   Shlomi, Yinon
7   Pecker, Iris
8   Ayal-Hershkovitz, Maty
9   Feinstein, Elena
10  Van Gelder, Joel M.
11  Vlodavsky, Israel
12  Friedmann, Yael
14 <120> TITLE OF INVENTION: HEPARANASE ACTIVITY NEUTRALIZING ANTI- HEPARANASE MONOCLONAL
15  ANTIBODY AND OTHER ANTI-HEPARANASE ANTIBODIES
17 <130> FILE REFERENCE: 30337
C--> 19 <140> CURRENT APPLICATION NUMBER: US/10/559,925
C--> 19 <141> CURRENT FILING DATE: 2005-12-08
19 <160> NUMBER OF SEQ ID NOS: 11
21 <170> SOFTWARE: PatentIn version 3.2
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 386
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
29 <220> FEATURE:
30 <221> NAME/KEY: misc_feature
31 <223> OTHER INFORMATION: 45 kDa subunit of mature processed heparanase dimer
33 <400> SEQUENCE: 1
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36 1          5          10          15
39 Tyr Thr Phe Ala Asn Cys Ser Gly Leu Asp Leu Ile Phe Gly Leu Asn
40          20          25          30
43 Ala Leu Leu Arg Thr Ala Asp Leu Gln Trp Asn Ser Ser Asn Ala Gln
44          35          40          45
47 Leu Leu Leu Asp Tyr Cys Ser Ser Lys Gly Tyr Asn Ile Ser Trp Glu
48          50          55          60
51 Leu Gly Asn Glu Pro Asn Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile
52 65          70          75          80
55 Asn Gly Ser Gln Leu Gly Glu Asp Phe Ile Gln Leu His Lys Leu Leu
56          85          90          95
59 Arg Lys Ser Thr Phe Lys Asn Ala Lys Leu Tyr Gly Pro Asp Val Gly
60          100         105         110
63 Gln Pro Arg Arg Lys Thr Ala Lys Met Leu Lys Ser Phe Leu Lys Ala
64          115         120         125
67 Gly Gly Glu Val Ile Asp Ser Val Thr Trp His His Tyr Tyr Leu Asn
68          130         135         140

```

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Output Set: N:\CRF4\12202005\J559925.raw

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71 Gly Arg Thr Ala Thr Arg Glu Asp Phe Leu Asn Pro Asp Val Leu Asp
72 145                150                155                160
75 Ile Phe Ile Ser Ser Val Gln Lys Val Phe Gln Val Val Glu Ser Thr
76                165                170                175
79 Arg Pro Gly Lys Lys Val Trp Leu Gly Glu Thr Ser Ser Ala Tyr Gly
80                180                185                190
83 Gly Gly Ala Pro Leu Leu Ser Asp Thr Phe Ala Ala Gly Phe Met Trp
84                195                200                205
87 Leu Asp Lys Leu Gly Leu Ser Ala Arg Met Gly Ile Glu Val Val Met
88                210                215                220
91 Arg Gln Val Phe Phe Gly Ala Gly Asn Tyr His Leu Val Asp Glu Asn
92 225                230                235                240
95 Phe Asp Pro Leu Pro Asp Tyr Trp Leu Ser Leu Leu Phe Lys Lys Leu
96                245                250                255
99 Val Gly Thr Lys Val Leu Met Ala Ser Val Gln Gly Ser Lys Arg Arg
100                260                265                270
103 Lys Leu Arg Val Tyr Leu His Cys Thr Asn Thr Asp Asn Pro Arg Tyr
104                275                280                285
107 Lys Glu Gly Asp Leu Thr Leu Tyr Ala Ile Asn Leu His Asn Val Thr
108                290                295                300
111 Lys Tyr Leu Arg Leu Pro Tyr Pro Phe Ser Asn Lys Gln Val Asp Lys
112 305                310                315                320
115 Tyr Leu Leu Arg Pro Leu Gly Pro His Gly Leu Leu Ser Lys Ser Val
116                325                330                335
119 Gln Leu Asn Gly Leu Thr Leu Lys Met Val Asp Asp Gln Thr Leu Pro
120                340                345                350
123 Pro Leu Met Glu Lys Pro Leu Arg Pro Gly Ser Ser Leu Gly Leu Pro
124                355                360                365
127 Ala Phe Ser Tyr Ser Phe Phe Val Ile Arg Asn Ala Lys Val Ala Ala
128                370                375                380
131 Cys Ile
132 385
135 <210> SEQ ID NO: 2
136 <211> LENGTH: 535
137 <212> TYPE: PRT
138 <213> ORGANISM: Mus musculus
140 <400> SEQUENCE: 2
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143 1                5                10                15
146 Ala Gln Gly Ala Pro Ala Gly Thr Ala Pro Thr Asp Asp Val Val Asp
147                20                25                30
150 Leu Glu Phe Tyr Thr Lys Arg Pro Leu Arg Ser Val Ser Pro Ser Phe
151                35                40                45
154 Leu Ser Ile Thr Ile Asp Ala Ser Leu Ala Thr Asp Pro Arg Phe Leu
155                50                55                60
158 Thr Phe Leu Gly Ser Pro Arg Leu Arg Ala Leu Ala Arg Gly Leu Ser
159 65                70                75                80
162 Pro Ala Tyr Leu Arg Phe Gly Gly Thr Lys Thr Asp Phe Leu Ile Phe
163                85                90                95

```

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166 Asp Pro Asp Lys Glu Pro Thr Ser Glu Glu Arg Ser Tyr Trp Lys Ser
167      100      105      110
170 Gln Val Asn His Asp Ile Cys Arg Ser Glu Pro Val Ser Ala Ala Val
171      115      120      125
174 Leu Arg Lys Leu Gln Val Glu Trp Pro Phe Gln Glu Leu Leu Leu Leu
175      130      135      140
178 Arg Glu Gln Tyr Gln Lys Glu Phe Lys Asn Ser Thr Tyr Ser Arg Ser
179 145      150      155      160
182 Ser Val Asp Met Leu Tyr Ser Phe Ala Lys Cys Ser Gly Leu Asp Leu
183      165      170      175
186 Ile Phe Gly Leu Asn Ala Leu Leu Arg Thr Pro Asp Leu Arg Trp Asn
187      180      185      190
190 Ser Ser Asn Ala Gln Leu Leu Leu Asp Tyr Cys Ser Ser Lys Gly Tyr
191      195      200      205
194 Asn Ile Ser Trp Glu Leu Gly Asn Glu Pro Asn Ser Phe Trp Lys Lys
195      210      215      220
198 Ala His Ile Leu Ile Asp Gly Leu Gln Leu Gly Glu Asp Phe Val Glu
199 225      230      235      240
202 Leu His Lys Leu Leu Gln Arg Ser Ala Phe Gln Asn Ala Lys Leu Tyr
203      245      250      255
206 Gly Pro Asp Ile Gly Gln Pro Arg Gly Lys Thr Val Lys Leu Leu Arg
207      260      265      270
210 Ser Phe Leu Lys Ala Gly Gly Glu Val Ile Asp Ser Leu Thr Trp His
211      275      280      285
214 His Tyr Tyr Leu Asn Gly Arg Ile Ala Thr Lys Glu Asp Phe Leu Ser
215      290      295      300
218 Ser Asp Ala Leu Asp Thr Phe Ile Leu Ser Val Gln Lys Ile Leu Lys
219 305      310      315      320
222 Val Thr Lys Glu Ile Thr Pro Gly Lys Lys Val Trp Leu Gly Glu Thr
223      325      330      335
226 Ser Ser Ala Tyr Gly Gly Gly Ala Pro Leu Leu Ser Asn Thr Phe Ala
227      340      345      350
230 Ala Gly Phe Met Trp Leu Asp Lys Leu Gly Leu Ser Ala Gln Met Gly
231      355      360      365
234 Ile Glu Val Val Met Arg Gln Val Phe Phe Gly Ala Gly Asn Tyr His
235      370      375      380
238 Leu Val Asp Glu Asn Phe Glu Pro Leu Pro Asp Tyr Trp Leu Ser Leu
239 385      390      395      400
242 Leu Phe Lys Lys Leu Val Gly Pro Arg Val Leu Leu Ser Arg Val Lys
243      405      410      415
246 Gly Pro Asp Arg Ser Lys Leu Arg Val Tyr Leu His Cys Thr Asn Val
247      420      425      430
250 Tyr His Pro Arg Tyr Gln Glu Gly Asp Leu Thr Leu Tyr Val Leu Asn
251      435      440      445
254 Leu His Asn Val Thr Lys His Leu Lys Val Pro Pro Pro Leu Phe Arg
255      450      455      460
258 Lys Pro Val Asp Thr Tyr Leu Leu Lys Pro Ser Gly Pro Asp Gly Leu
259 465      470      475      480
262 Leu Ser Lys Ser Val Gln Leu Asn Gly Gln Ile Leu Lys Met Val Asp

```

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Input Set : A:\pto.da.txt

Output Set: N:\CRF4\12202005\J559925.raw

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263          485          490          495
266 Glu Gln Thr Leu Pro Ala Leu Thr Glu Lys Pro Leu Pro Ala Gly Ser
267          500          505          510
270 Ala Leu Ser Leu Pro Ala Phe Ser Tyr Gly Phe Phe Val Ile Arg Asn
271          515          520          525
274 Ala Lys Ile Ala Ala Cys Ile
275          530          535
278 <210> SEQ ID NO: 3
279 <211> LENGTH: 536
280 <212> TYPE: PRT
281 <213> ORGANISM: Rattus norvegicus
283 <400> SEQUENCE: 3
285 Met Leu Arg Pro Leu Leu Leu Leu Trp Leu Trp Gly Arg Leu Arg Ala
286 1          5          10          15
289 Leu Thr Gln Gly Thr Pro Ala Gly Thr Ala Pro Thr Lys Asp Val Val
290          20          25          30
293 Asp Leu Glu Phe Tyr Thr Lys Arg Leu Phe Gln Ser Val Ser Pro Ser
294          35          40          45
297 Phe Leu Ser Ile Thr Ile Asp Ala Ser Leu Ala Thr Asp Pro Arg Phe
298          50          55          60
301 Leu Thr Phe Leu Gly Ser Pro Arg Leu Arg Ala Leu Ala Arg Gly Leu
302 65          70          75          80
305 Ser Pro Ala Tyr Leu Arg Phe Gly Gly Thr Lys Thr Asp Phe Leu Ile
306          85          90          95
309 Phe Asp Pro Asn Lys Glu Pro Thr Ser Glu Glu Arg Ser Tyr Trp Gln
310          100         105         110
313 Ser Gln Asp Asn Asn Asp Ile Cys Gly Ser Glu Arg Val Ser Ala Asp
314          115         120         125
317 Val Leu Arg Lys Leu Gln Met Glu Trp Pro Phe Gln Glu Leu Leu Leu
318          130         135         140
321 Leu Arg Glu Gln Tyr Gln Arg Glu Phe Lys Asn Ser Thr Tyr Ser Arg
322 145         150         155         160
325 Ser Ser Val Asp Met Leu Tyr Ser Phe Ala Lys Cys Ser Arg Leu Asp
326          165         170         175
329 Leu Ile Phe Gly Leu Asn Ala Leu Leu Arg Thr Pro Asp Leu Arg Trp
330          180         185         190
333 Asn Ser Ser Asn Ala Gln Leu Leu Leu Asn Tyr Cys Ser Ser Lys Gly
334          195         200         205
337 Tyr Asn Ile Ser Trp Glu Leu Gly Asn Glu Pro Asn Ser Phe Trp Lys
338          210         215         220
341 Lys Ala Gln Ile Ser Ile Asp Gly Leu Gln Leu Gly Glu Asp Phe Val
342 225         230         235         240
345 Glu Leu His Lys Leu Leu Gln Lys Ser Ala Phe Gln Asn Ala Lys Leu
346          245         250         255
349 Tyr Gly Pro Asp Ile Gly Gln Pro Arg Gly Lys Thr Val Lys Leu Leu
350          260         265         270
353 Arg Ser Phe Leu Lys Ala Gly Gly Glu Val Ile Asp Ser Leu Thr Trp
354          275         280         285
357 His His Tyr Tyr Leu Asn Gly Arg Val Ala Thr Lys Glu Asp Phe Leu

```

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PATENT APPLICATION: US/10/559,925

TIME: 10:43:53

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\12202005\J559925.raw

```

358      290      295      300
361 Ser Ser Asp Val Leu Asp Thr Phe Ile Leu Ser Val Gln Lys Ile Leu
362 305      310      315      320
365 Lys Val Thr Lys Glu Met Thr Pro Gly Lys Lys Val Trp Leu Gly Glu
366      325      330      335
369 Thr Ser Ser Ala Tyr Gly Gly Gly Ala Pro Leu Leu Ser Asn Thr Phe
370      340      345      350
373 Ala Ala Gly Phe Met Trp Leu Asp Lys Leu Gly Leu Ser Ala Gln Leu
374      355      360      365
377 Gly Ile Glu Val Val Met Arg Gln Val Phe Phe Gly Ala Gly Asn Tyr
378      370      375      380
381 His Leu Val Asp Glu Asn Phe Glu Pro Leu Pro Asp Tyr Trp Leu Ser
382 385      390      395      400
385 Leu Leu Phe Lys Lys Leu Val Gly Pro Lys Val Leu Met Ser Arg Val
386      405      410      415
389 Lys Gly Pro Asp Arg Ser Lys Leu Arg Val Tyr Leu His Cys Thr Asn
390      420      425      430
393 Val Tyr His Pro Arg Tyr Arg Glu Gly Asp Leu Thr Leu Tyr Val Leu
394      435      440      445
397 Asn Leu His Asn Val Thr Lys His Leu Lys Leu Pro Pro Pro Met Phe
398      450      455      460
401 Ser Arg Pro Val Asp Lys Tyr Leu Leu Lys Pro Phe Gly Ser Asp Gly
402 465      470      475      480
405 Leu Leu Ser Lys Ser Val Gln Leu Asn Gly Gln Thr Leu Lys Met Val
406      485      490      495
409 Asp Glu Gln Thr Leu Pro Ala Leu Thr Glu Lys Pro Leu Pro Ala Gly
410      500      505      510
413 Ser Ser Leu Ser Val Pro Ala Phe Ser Tyr Gly Phe Phe Val Ile Arg
414      515      520      525
417 Asn Ala Lys Ile Ala Ala Cys Ile
418      530      535
421 <210> SEQ ID NO: 4
422 <211> LENGTH: 543
423 <212> TYPE: PRT
424 <213> ORGANISM: Homo sapiens
426 <400> SEQUENCE: 4
428 Met Leu Leu Arg Ser Lys Pro Ala Leu Pro Pro Pro Leu Met Leu Leu
429 1      5      10      15
432 Leu Leu Gly Pro Leu Gly Pro Leu Ser Pro Gly Ala Leu Pro Arg Pro
433      20      25      30
436 Ala Gln Ala Gln Asp Val Val Asp Leu Asp Phe Phe Thr Gln Glu Pro
437      35      40      45
440 Leu His Leu Val Ser Pro Ser Phe Leu Ser Val Thr Ile Asp Ala Asn
441      50      55      60
444 Leu Ala Thr Asp Pro Arg Phe Leu Ile Leu Leu Gly Ser Pro Lys Leu
445 65      70      75      80
448 Arg Thr Leu Ala Arg Gly Leu Ser Pro Ala Tyr Leu Arg Phe Gly Gly
449      85      90      95
452 Thr Lys Thr Asp Phe Leu Ile Phe Asp Pro Lys Lys Glu Ser Thr Phe

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VERIFICATION SUMMARY

DATE: 12/21/2005

PATENT APPLICATION: US/10/559,925

TIME: 10:43:54

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\12202005\J559925.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application No

L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date



**Raw Sequence Listing before editing,  
for reference only**



IFWP

## RAW SEQUENCE LISTING

DATE: 12/20/2005

PATENT APPLICATION: US/10/559,925

TIME: 10:26:33

Input Set : A:\30337 Sequence Listing.txt

Output Set: N:\CRF4\12202005\J559925.raw

3 &lt;110&gt; APPLICANT: Yacoby-Zeevi, Oron

4 Peretz, Tuvia

5 Miron, Daphna

6 Shlomi, Yinon

7 Pecker, Iris

8 Ayal-Hershkovitz, Maty

9 Feinstein, Elena

10 Van Gelder, Joel M.

11 Vlodavsky, Israel

12 Friedmann, Yael

14 &lt;120&gt; TITLE OF INVENTION: HEPARANASE ACTIVITY NEUTRALIZING ANTI- HEPARANASE MONOCLONAL

15 ANTIBODY AND OTHER ANTI-HEPARANASE ANTIBODIES

17 &lt;130&gt; FILE REFERENCE: 30337

C--&gt; 19 &lt;140&gt; CURRENT APPLICATION NUMBER: US/10/559,925

C--&gt; 19 &lt;141&gt; CURRENT FILING DATE: 2005-12-08

19 &lt;160&gt; NUMBER OF SEQ ID NOS: 11

21 &lt;170&gt; SOFTWARE: PatentIn version 3.2

Does Not Comply  
Corrected Diskette Needed  
CPR-1

## ERRORED SEQUENCES

777 &lt;210&gt; SEQ ID NO: 11

778 &lt;211&gt; LENGTH: 74

779 &lt;212&gt; TYPE: PRT

780 &lt;213&gt; ORGANISM: Homo sapiens

783 &lt;220&gt; FEATURE:

784 &lt;221&gt; NAME/KEY: misc\_feature

785 &lt;223&gt; OTHER INFORMATION: 8 kDa subunit of mature processed heparanase dimer

787 &lt;400&gt; SEQUENCE: 11

789 Gln Asp Val Val Asp Leu Asp Phe Phe Thr Gln Glu Pro Leu His Leu

790 1 5 10 15

793 Val Ser Pro Ser Phe Leu Ser Val Thr Ile Asp Ala Asn Leu Ala Thr

794 20 25 30

797 Asp Pro Arg Phe Leu Ile Leu Leu Gly Ser Pro Lys Leu Arg Thr Leu

798 35 40 45

801 Ala Arg Gly Leu Ser Pro Ala Tyr Leu Arg Phe Gly Gly Thr Lys Thr

802 50 55 60

805 Asp Phe Leu Ile Phe Asp Pro Lys Lys Glu

806 65 70

E--&gt; 811 11

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**VERIFICATION SUMMARY**

DATE: 12/20/2005

PATENT APPLICATION: US/10/559,925

TIME: 10:26:35

Input Set : A:\30337 Sequence Listing.txt

Output Set: N:\CRF4\12202005\J559925.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application No

L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:811 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:11